

Parks, Recreation and Historic Preservation

ANDREW M. CUOMO

ROSE HARVEY

Commissioner

Governor

July 28, 2016

Via Email and Regular Mail

Lisa Kim Pelcyger Ground Water Compliance Section, USEPA 290 Broadway, 20th Floor New York, NY 10007-1866 Email: kim.lisa@epa.gov

Re:

USEPA SDWA-UIC-IR-14-001

New Installation/Closure Plan for Caleb Smith State Park, NYSOPRHP

Dear Ms. Pelcyger:

Attached please find the UIC New Installation/Closure Plan for the Caleb Smith State Park on Long Island. The plan is being submitted to meet the requirements promulgated under the Safe Drinking Water Act regulations for new installations (40CFR Part 144.83) and for injection well closures (40 CFR Part 144.89). The New York State Office of Parks, Recreation & Historic Preservation plans to upgrade all large capacity and non-large capacity cesspools to sanitary systems with appropriately-sized septic tanks and leaching areas, decommission and close sanitary systems no longer in use, and install new systems with septic tanks and leaching areas.

All work will proceed in accordance with the USEPA Region 2 Guidance Document, Instructions for Class V Remediation Closure Plan dated March 16, 2015, and New York State DEC requirements for installation of new sanitary systems. Upon completion of construction, a "Final Remediation/Closure Plan" and updated EPA inventory forms will be submitted to document the final site as-built conditions.

If you have any questions regarding the plan, please do not hesitate to contact me at 631-321-3533 or scott.fish@parks.ny.gov, or Thomas LaGuardia, PE at Cashin Associates, PC at 631-348-7600 or tlaguardia@ca-pc.com.

Very truly yours,

Scott Fish

Capital Facilities Regional Manager II, NYSOPRHP

cc: Paul J. Laudato, General Counsel, NYSOPRHP (via email)

Kathleen L. Martens, Supervising Attorney NYSOPRHP (via email)

Joe Sun PhD, NYS Department of Environmental Conservation

Gregory T. Greene, Cashin Associates, P.C.

Thomas LaGuardia, PE, Cashin Associates, P.C.

DRAFT

SANITARY SYSTEMS NEW INSTALLATION/CLOSURE PLAN

CALEB SMITH STATE PARK PRESERVE



INTERAGENCY TRANSMISSION

Prepared For: New York State Office of Parks, Recreation and Historic Preservation

Long Island Region

Belmont Lake State Park

Submitted to: EPA Region 2

Ground Water Compliance Section

290 Broadway, 20th Floor

New York, NY 10007-1866

Prepared By: Cashin Associates, P.C.

1200 Veterans Memorial Highway

Hauppauge, NY 11788

July 2016

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Caleb Smith State Park Preserve New Installation/Closure Plan for Class V Underground Injection Wells

Location: Caleb Smith State Park Preserve

581 West Jericho Turnpike Smithtown, NY 11757

Contact Person: Scott Fish, P.E.

Capital Facilities Regional Manager

New York State Office of Parks, Recreation and Historic Preservation

Long Island Region Belmont Lake State Park

P.O. Box 247

Babylon, NY 11702-0247

631-321-3533

DESCRIPTION OF PARK

Caleb Smith State Park Preserve is one of only two state nature preserves on Long Island. Within its 543-acres are a variety of habitats offering guess picturesque views that change within the seasons. Caleb Smith is a passive use park featuring hiking trails, nature programs, fishing including fly fishing, nature museum, visitors center, meeting spaces, gift shop, bird watching, snow-shoeing and cross-county skiing. Additional facilities. The park has approximately 12,000 visitors each year.

DESCRIPTION OF WORK

Attachment 1 is a spreadsheet showing both the new work and planned injection well closure at Caleb Smith Sate Park Preserve. The work consists of upgrading large capacity cesspools to code compliant septic systems, repairing or replacing septic tanks that are failing, upgrading all other cesspool system to septic systems, and decommissioning and closure of systems no longer in use. The closure of on-site systems will be performed in accordance with EPA Region 2 Underground Injection Control (UIC) Program Instructions for Class V Remediation/Closure Plans (March 16, 2015).

PROCEDURES PURSUANT TO EPA REGION 2

A. Site Schematic

A site plan is attached (Attachment 2) showing all buildings on the site and all sanitary outfalls (outfalls 1 through 8). A description of the work planned at each outfall is found in Attachment 1. The plans and specifications associated with the new installation and decommissioning of the well/systems no longer needed will be submitted to the New York State, Department of Environmental Conservation (NYSDEC) Region 1 for approval before proceeding with the work. Construction is anticipated to begin in spring of 2017 and be completed in the winter of 2018.

B. <u>Description of Business</u>

Caleb Smith is a passive park. This not only helps protect the local plant and wildlife populations but also allows visitors to escape from the hustle and bustle of everyday life and enjoy the quiet serenity that can only be found in nature. The Nature Museum has been recently renovated and showcases natural history exhibits including a Great Blue Heron, Red Fox, Flying Squirrel and a River Otter. Nature programs are offered, for all ages, year round. Tiny Tot programs are geared for 3-5 year olds and occur on a bi-weekly basis. Programs for children are suited for those ages 5 and up. Family programs are designed for ages 5 and up but younger siblings are always welcome. Adult programs are offered to those who are 18 and older. Reservations are required for all programs.

C. Description of Fluids Injected

The on-site systems treat only sanitary human waste. No known drains which could permit chemicals or industrial waste to enter the sanitary waste are connected to these systems.

D. Connection Between Drains and Injection Wells

The engineering firm of Cashin Associates, P.C. (CA) 1200 Veteran's Memorial Highway, Hauppauge, NY 11788, assisted by a utility mark out company, and verified connection of all drains to the subject injection wells. They utilized visual inspection, dye tests and ground penetrating radar to determine drain locations.

E. Description of Permanent Closure

Attachment 3 is a detailed specification for closure of injection wells associated with the on-site sanitary systems.

F. Contaminant Removal

While we do not expect to encounter hazardous waste/soils based on our investigations, if they are encountered all waste/contaminated soils will be removed from in and around the cesspools until visibly clean soil is reached. Removal will be by excavation. Disposal of the waste will follow the requirements of 6 NYCRR Part 360. Note that Attachment 5, Section 21500 of the specification requires both visual inspection and the use of a PID hand-held VOC monitor at each injection well. Liquid wastes will be removed by a Suffolk County licensed hauler and disposed at a licensed scavenger waste facility.

G. On-site Storage of Excavated Material

On-site storage of material found to be hazardous will be in tarp covered roll off containers until disposal.

H. Waste characterization

We reference section II – A.1 of USEPA Region 2 UIC Program Instructions, "Large capacity cesspools that have received <u>only</u> sanitary waste". From the Region 2 Instructions, which discuss well specific sampling requirements, "Large Capacity" means serves or designed to serve 20 or more people per day. The cesspools must be pumped out and the wastes must be disposed of properly by a licensed hauler. Excavation, end-point sampling and analysis are typically not required. The waste/fluids that entered the Class V wells previously were untreated sanitary waste containing human excreta. Thus no testing will be conducted, other than visual inspection and use of a hand-held VOC monitor.

I. Backfill

Sites will be backfilled with clean inert sand.

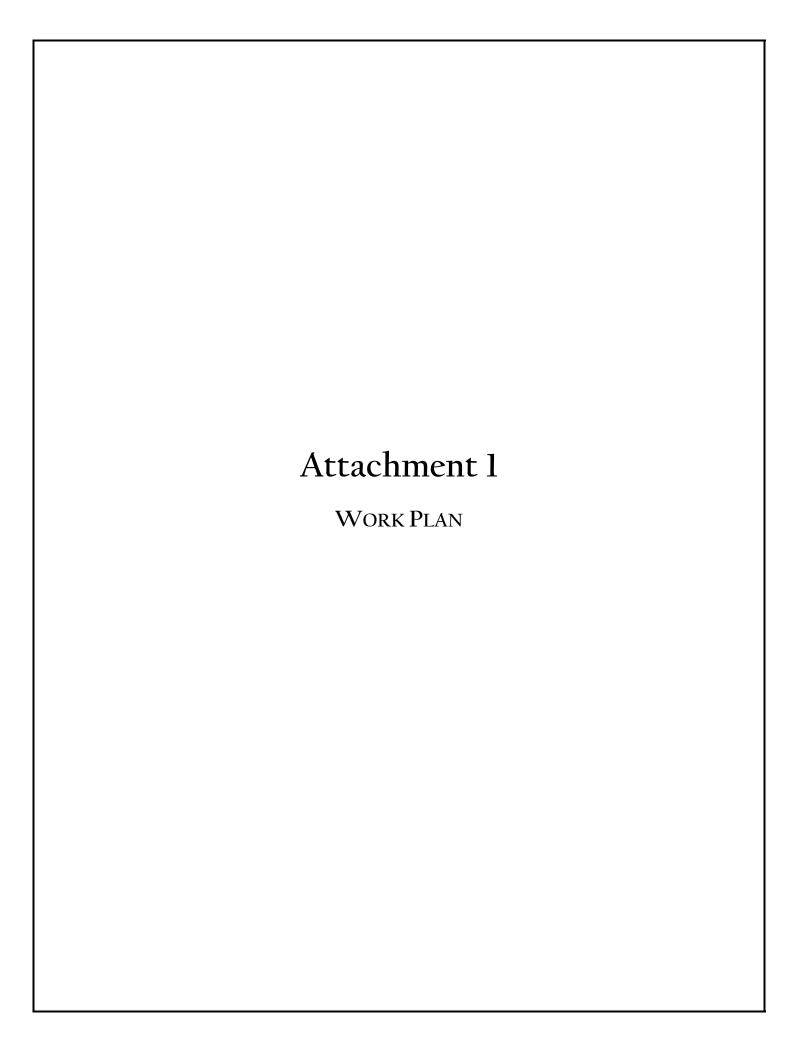
J. Final Report

A Final Remediation/ Closure Report will be issued upon completion of the construction project closing the subject class V wells. In addition updated EPA Inventory Forms will be submitted based on as-built drawings of the construction. Construction is expected to be completed in the winter of 2018. The reports will be sent to:

Chief

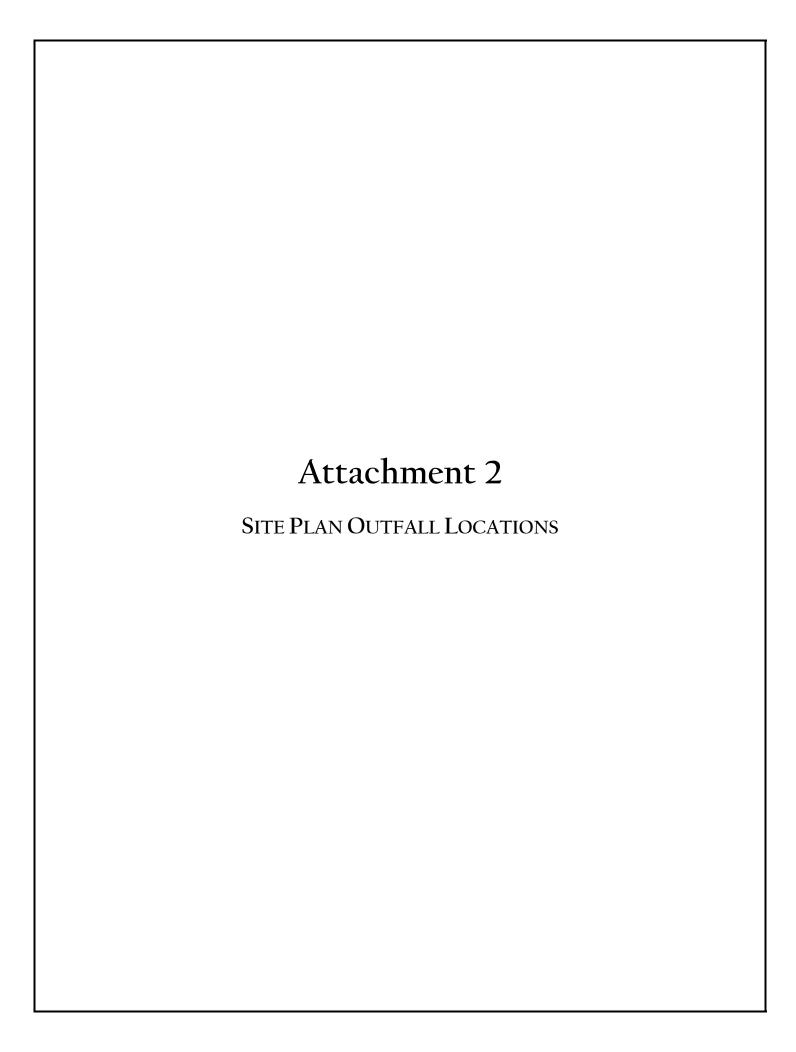
Ground Water Compliance Section U.S. Environmental Protection Agency 290 Broadway, 20th Floor New York, NY 10007-1866

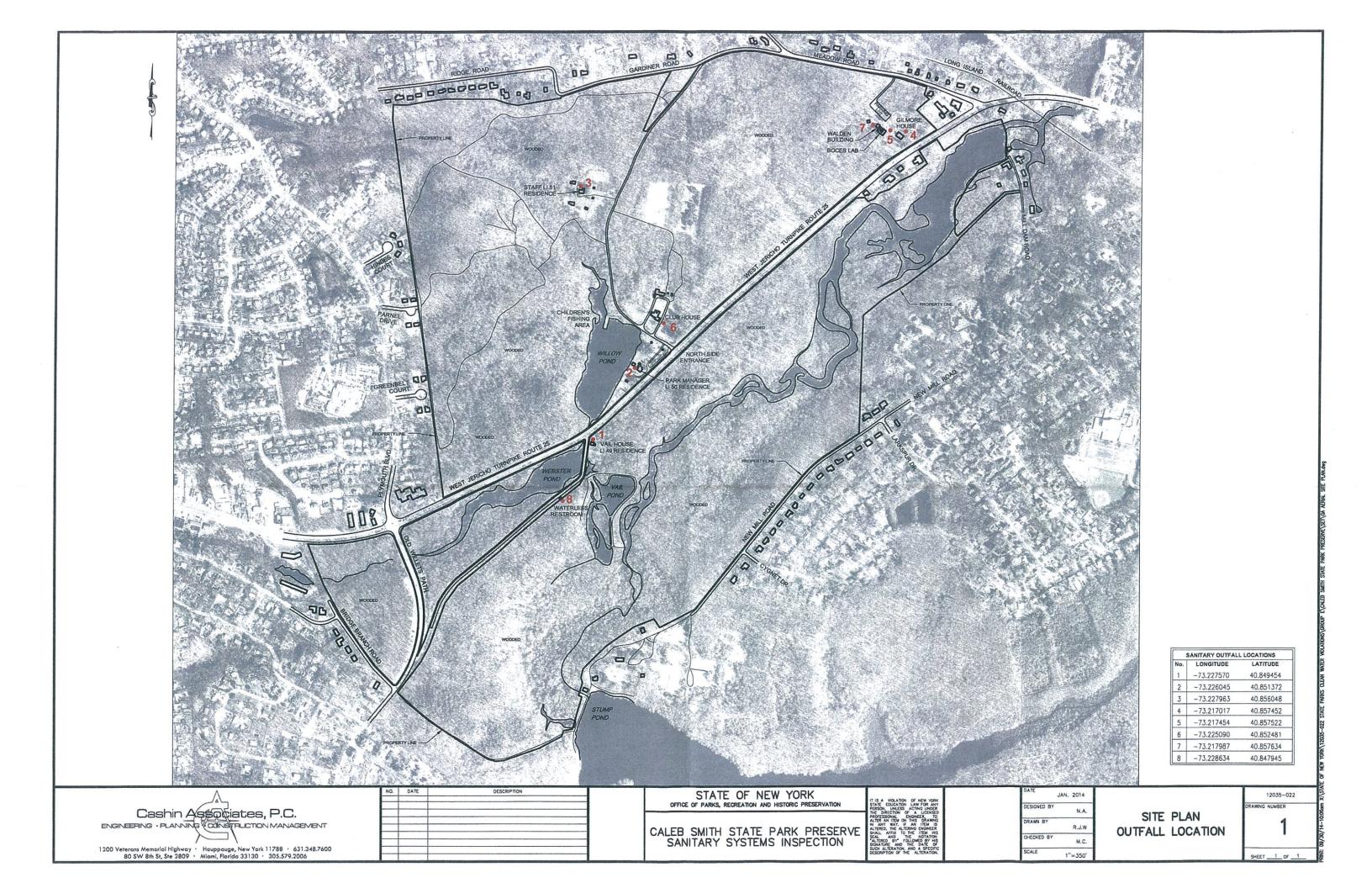
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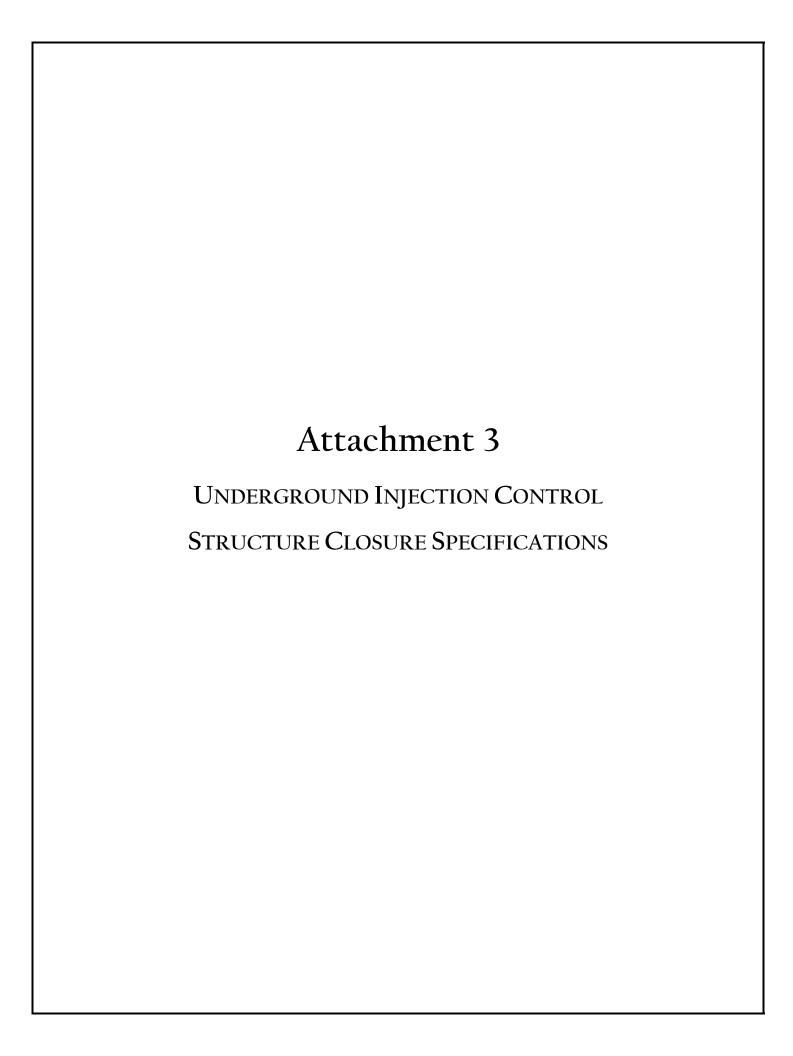


		7/11/2016									
Original Outfall #	New SPDES #	Location	Original SPDES Design Flow Gallons/ Day	New SPDES Design Flow Gallons/ Day	Flow Basis	Septic Tank	Grease Trap	Pump Station	Leaching Area	Leaching Configuration	Comments
1	001	Vail House LI-49	300	300	SCDHS Single-Family Residence	existing			existing	existing	Locate the leaching pool(s) and bring to grade. Install locking manhole covers at grade on the leaching pool(s). Replace the existing septic tank manhole covers with new locking assemblies at grade.
2	002	Residence LI-50	300	300	SCDHS Single-Family Residence	existing		existing	existing	existing	Locate the leaching pools and install cast-iron manhole covers to grade. Remove the gray water line and abandon the dry well. Reroute the washing machine discharge to the existing septic tank.
2A		Residence LI-50 (Grey Water)	Not Listed	N/A							Reroute Plumbing externally to 002. Abandon cesspool.
3	003	Residence LI-51	300	300	SCDHS Single-Family Residence	1,000 gallon			300 sf	10 ft. dia. x 10 ft. eff. Depth	Pump, close and abandon/remove the existing septic tank and leaching pool and install a new precast septic tank and leaching pool (300 sf of leaching area) with covers to grade.
4	004	Residence LI-72	300	300	SCDHS Single-Family Residence	existing			existing	existing	Remove all existing frames and covers. Install new locking manhole cover assemblies on all components, cementing them in place and regrade the site so that only the covers are exposed at grade. If further inspection reveals that the leaching pools are of block construction, replace the pools with precast overflow leaching pools.
5	005	BOCES Lab	2,790	250	SCDHS Office -4,000 sf @ 0.06 gpd/sf	1,200 gallon 8 ft. dia. x 4 ft. eff. Depth			300 sf	10 ft. dia. x 10 ft. eff. Depth	Pump, close and abandon the existing cesspool. Replace all exterior sewer pipes and vents with new material. Install a new sewage disposal system consisting of a 1,200 gallon septic tank with 300 sf of effective leaching area.
6	006	Clubhouse/Museum/Park Office	3,420	1,200	SCDHS Office & Museum ~ 13,800 sf 25% office @ 0.06 gpd/sf 75% Museum @ 0.03 gpd/sf	2,500 gallon 10 ft. dia x 4 ft. eff. Depth			existing	existing	Pump and clean the existing cesspool and overflow pools. Install a new 2,500 _ gallon septic tank and convert the existing cesspool to a distribution pool. Install covers to grade on all components.
7	007	Walden Building	2,250	300	SCDHS Office & Classroom 750 sf office @ 0.06 gpd/sf 750 sf classroom @ 5 gpd/student	1,200 gallon 8 ft. dia. x 4 ft. eff. Depth			300 sf	10 ft. dia. x 10 ft. eff. Depth	Pump, close and abandon/remove the existing disposal system and replace it with a 1,200-gallon septic tank with a 10 ft. Ø by 10 ft. eff. Depth leaching pool.
8	008	Waterless Restroom (Clivus Multrum)	N/A	N/A							Provide Hand Sanitizing fluid for use of patrons.
Not Listed	009	Residence LI-51 (Gray Water Only)	N/A	100	Nominal Estimate Residential Washing Machine Only	1,200 gallon 8 ft. dia. x 4 ft. eff. Depth			existing	existing ,	Pump and remove cesspool and sewer lines. Over excavate to remove saturated soits below cesspool. Install new 1,200 gallon septic tank and house connection. Connect septic tank to existing leaching pools.
Not Listed	010	Vail House LI-49 (Gray Water Only)	N/A	100	Nominal Estimate Residential Washing Machine Only	1,200 gallon 8 ft. dia. x 4 ft. eff. Depth			existing	existing	Pump and remove cesspool and sewer lines. Over excavate to remove saturated soils below cesspool. Install new 1,200 gallon septic tank and house connection. Connect septic tank to existing leaching pools.
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SECTION 021500 UNDERGROUND INJECTION CONTROL STRUCTURE CLOSURE

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope of Work:

- 1. The Contractor shall furnish all labor, materials, supplies, equipment, power, facilities and incidentals necessary to properly close existing underground injection control (UIC) structures located throughout the site, as shown on the Drawings. Work includes, but is not limited to, removal and disposal of standing liquids within the structures, removal of sludge and soil from the bottom of the structures, collection and analysis of endpoint sample(s) from the bottom of the structures, and backfilling and sealing the structures.
- 2. Closure of the Underground Injection Control (UIC) structures must be conducted in accordance with all applicable federal, state and local regulations with sampling only where directed by the Engineer, or as indicated on the drawings, and the approved UIC Closure Plan, as provided by the Owner.
- 3. The work shall include removal of all materials regardless of type, character, composition, weight, size or condition.
- 4. All waste generated during completion of the Work shall be managed in accordance with Section 021300, Waste Transportation and Disposal, and all applicable federal, state and local regulations.
- 5. The Work shall include all temporary means to manage and control storm water discharge, and prevent siltation and sedimentation of existing storm water management systems during the performance of the Work.
- 6. The Contractor shall examine the areas and conditions under which Work shall be performed. The Contractor shall correct all conditions detrimental to proper and timely completion of the Work and shall not proceed until unsatisfactory conditions have been corrected. The Contractor shall immediately notify the Owner of any perceived differences in existing conditions which may impact the Work.
- 7. At all times during closure activities, the Contractor shall provide equipment and facilities to remove all generated wash water. The Contractor shall be responsible for excavating and backfilling, in accordance with these Specifications, any soil contaminated due to improper containment of wash water at no additional expense to the Owner.

8. Contractor shall have a PID hand held VOC Monitor, Mini RAE Lite Model PGM-7300 or equivalent, on site to monitor all open excavations before backfilling.

B. Related Work Specified Elsewhere.

1. Section 026100, "Storage, Handling, Transportation And Disposal Of Petroleum-Contaminated Material And/Or Hazardous Wastes"

1.2 SUBMITTALS

A. UIC Closure Procedures:

1. Contractor shall submit closure procedures to the Engineer for approval. The procedures shall specify all procedures, equipment, materials and manpower which will be utilized to close each respective UIC structure.

1.3 PERMITS AND REGULATIONS

- A. The Contractor shall prepare all required submittals and obtain all necessary permits and approvals and pay all fees for the Work as required by federal, state and local agencies, including the New York State Department of Environmental Conservation (NYSDEC) and the United States Environmental Protection Agency (USEPA) as applicable.
- B. The Contractor shall perform all Work in strict compliance with all applicable requirements of governing authorities having jurisdiction, including NYSDEC and the USEPA as applicable.
- C. The Contractor is advised that all excavation work shall be in strict compliance with Occupational Safety and Health Administration (OSHA), Title 29, Code of Federal Regulations 1926, Subpart P: Excavation and Industrial Code Rule 23 as established by the New York State Department of Labor.

1.4 MANAGEMENT OF LIQUID WASTE

- A. The Contractor shall be responsible for collecting, managing and disposing of all water and liquid waste present within the UIC structure at the beginning of construction, and any water and liquid waste entering the UIC structure as a result of construction activities. This includes, but is not limited to, water resulting from maintaining excavations, cleaning the UIC structures and any storm water.
- B. At all times during construction, the Contractor shall provide equipment and facilities to remove all water entering excavations from any sources. All excavations shall be kept dry so as not to impede construction or result in damage or loss of integrity of any complete Work.

C. The Contractor shall provide and maintain pumps, sumps, suction and discharge lines, dikes, berms or other controls as necessary to convey liquids away from the excavations. Control devices shall not be removed until disturbed areas are restored or as approved by the Engineer or the Owner.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION

- A. The Contractor shall notify the Engineer, NYSDEC, and the USEPA at least 5 days prior to any field work related to UIC structure closure.
- B. The Contractor shall give special attention to the buildings and structures that are in close proximity of the Work and shall implement all necessary measures to prevent damage to property. Damage to buildings or structures, not scheduled for demolition shall be repaired at the Contractor's expense.
- C. The Contractor shall completely secure any open UIC structures and excavation at the conclusion of the Work or at the end of the day, whichever is sooner. The cover shall be weather-tight and prevent infiltration of storm water and drainage water, and prevent the release of vapors and odors. The cover shall be positioned to shed precipitation, storm water runoff and drainage water. Open UIC structures and excavations shall be barricaded with safety fencing, signs and other means as required by federal, state and local laws and regulations.
- D. The Contractor shall prevent the release of vapors, odor and dust originating during excavation of the UIC structures, removal of liquid, sediment and soil from the UIC structures, loading materials and any other operations required by this Contract.

3.1 DRY WELL/CESSPOOL CLOSURE

- A. The Contractor shall remove the cover, frame, stack, dome, debris, and soil in the vicinity of the dry well/cesspool to completely expose the top of the dry well/cesspool.
- B. The Contractor shall remove the dome, top slab and/or "stack" of the dry well/cesspool, including the manhole rims and covers, if present, to provide an open excavation which extends from ground surface to the bottom of the dry well/cesspool.
- C. All liquids and sludge shall be removed from the dry well/cesspool to the existing sediment surface and placed immediately into approved liquid waste hauling vehicles for off-site disposal.
- D. Where directed by the Engineer, the interior walls of the dry well/cesspool shall be power washed by the Contractor. The Contractor shall collect, characterize, remove and dispose of all soil, sludge, sediment, debris, wastewater, wash water and residuals from with the dry well/cesspool. In power washing the dry well, the

Contractor shall minimize the generation of wastewater and maximize the capture of the wash water.

- E. Where directed by the Engineer, excavation of the soil beneath the dry well/cesspool shall be accomplished as specified by Section 310000, Earthwork, to the horizontal extent of the inside of the rings of the dry well/cesspool and as approved by the Engineer.
- F. Excavation of any visually stained soil or soil exhibiting elevated PID readings shall be accomplished as specified in Section 310000, Earthwork, as directed by the Engineer. All contaminated soil excavated shall be disposed off-site in accordance with Section 021300, Waste Transportation and Disposal.
- G. The Contractor shall be responsible for all structural support, bracing, shoring, backfilling etc., necessary to prevent damage, to nearby structures scheduled to remain.
- H. The contractor shall either remove the dry well/cesspool structure or abandon it in place as directed on the drawings.
- I. Where directed by the Engineer, an endpoint sample shall be collected from the bottom of the excavation, as specified by Section 016520, Sampling Plan. No backfilling shall take place until approval of the endpoint sampling results by the Owner and, as applicable, the USEPA and NYSDEC. There shall be no claims for changes in Contract Time or Contract Price as a result of the Owner's, Engineer's, USEPA's or NYSDEC's review of endpoint sample results. Should the Contractor backfill the excavation prior to the approval of the endpoint sample results to maintain the integrity of the excavation, such work is at the Contractor's risk. Should additional excavation be required, all such backfill shall be removed and handled, as directed by the Engineer, at no additional cost to the Owner.
- J. Once the Contractor has obtained approval of the endpoint sample results, the dry well/cesspool excavation shall be backfilled. Backfill and compaction shall be completed in accordance with the requirement specified in Section 310000, Earthwork.

3.2 MANHOLE CLOSURE

- A. The Contractor shall remove the cover, frame, stack, dome, debris, and soil in the vicinity of the manhole to completely expose the top of the manhole.
- B. The Contractor shall remove the dome, top slab and/or "stack" of the manhole, including the manhole rims and covers, if present, to provide an open excavation which extends from ground surface to the bottom of the manhole.
- C. All liquids and sludge shall be removed from the manhole and placed immediately into approved liquid waste hauling vehicles for off-site disposal.
- D. For Manholes to be removed, the Contractor shall excavate and completely remove the manhole and associated drainage piping within 3 feet of the structure. Excavation of any visually stained soil or soil exhibiting elevated PID readings shall be accomplished as specified in Section 310000, Earthwork, as directed by the

- Engineer. All contaminated soil excavated shall be disposed off-site in accordance with Section 021300, Waste Transportation and Disposal.
- E. The Contractor shall be responsible for all structural support, bracing, shoring, backfilling etc., necessary to prevent damage, to nearby structures scheduled to remain.
- F. Where directed by the Engineer, an endpoint sample shall be collected from the bottom of the excavation, as specified by Section 016520, Sampling Plan. No backfilling shall take place until approval of the endpoint sampling results by the Owner and, as applicable, the USEPA and NYSDEC. There shall be no claims for changes in Contract Time or Contract Price as a result of the Owner's, Engineer's, USEPA's or NYSDEC's review of endpoint sample results. Should the Contractor backfill the excavation prior to the approval of the endpoint sample results to maintain the integrity of the excavation, such work is at the Contractor's risk. Should additional excavation be required, all such backfill shall be removed and handled, as directed by the Engineer, at no additional cost to the Owner.
- G. Once the Contractor has obtained approval of the endpoint sample results, the excavation shall be backfilled unless the structure is to be replaced at the same location. Backfill and compaction shall be completed in accordance with the requirements specified in Section 310000, Earthwork.
- H. For manholes to be abandoned in place, the Contractor shall seal with grout all sewer lines entering or exiting the manhole and shall fracture the bottom of the manhole to expose the soil below. The remaining structure shall be backfilled. Backfill and compaction shall be completed in accordance with the requirements specified in Section 310000, Earthwork.

3.3 SEPTIC SYSTEM CLOSURE

- A. The Contractor shall remove the debris, and soil in the vicinity of the septic system to completely expose the septic tank and associated discharge piping.
- B. The Contractor shall remove the dome, top slab and/or "stack" of the septic tank, including the manhole rims and covers, if present, to provide an open excavation which extends from ground surface to the bottom of the septic tank.
- C. All liquids and sludge shall be removed from the septic tank and placed immediately into approved liquid waste hauling vehicles for off-site disposal.
- D. Where removal is indicated on the drawings or as directed by the Engineer, the Contractor shall excavate and completely remove the septic tank and associated drainage piping. Excavation of any visually stained soil or soil exhibiting elevated PID readings shall be accomplished as specified in Section 31000, Earthwork, as directed by the Engineer. All contaminated soil excavated shall be disposed off-site in accordance with Section 021300, Waste Transportation and Disposal.
- E. The Contractor shall be responsible for all structural support, bracing, shoring, backfilling etc., necessary to prevent damage, to nearby structures scheduled to remain.

- F. The septic tank(s) shall be removed and/or abandoned in place as indicated on the drawings. Where the drawings indicate the tank is to be abandoned in place the bottom slab of the septic tank(s) shall be completely broken-up to allow proper drainage. The septic tank(s) shall be backfilled and compacted in accordance with the requirements specified in Section 310000, Earthwork.
- G. Where directed by the Engineer, an endpoint sample shall be collected from the bottom of the excavation, as specified by Section 016520, Sampling Plan. No backfilling shall take place until approval of the endpoint sampling results by the Owner and, as applicable, the USEPA and NYSDEC. There shall be no claims for changes in Contract Time or Contract Price as a result of the Owner's, Engineer's, USEPA's or NYSDEC's review of endpoint sample results. Should the Contractor backfill the excavation prior to the approval of the endpoint sample results to maintain the integrity of the excavation, such work is at the Contractor's risk. Should additional excavation be required, all such backfill shall be removed and handled, as directed by the Engineer, at no additional cost to the Owner.
- H. Once the Contractor has obtained approval of the endpoint sample results, the excavation shall be backfilled unless the structure is to be replaced at the same location. Backfill and compaction shall be completed in accordance with the requirements specified in Section 310000, Earthwork.

3.4 FLOOR DRAIN / TRENCH DRAIN CLOSURE

- A. The Contractor shall remove all debris and soil in the vicinity of the floor drain to completely expose the extent of the drain.
- B. The Contractor shall remove all floor/trench drain covers.
- C. The Contractor shall prepare floor/trench drain surfaces as required to receive concrete fill.
- D. The Contractor shall fill floor/trench drains with concrete flush with the existing floor. Before filling trench drains any outlet piping shall be capped. Concrete shall be in accordance with Section 033010, "Cast-In-Place Concrete", and Section 036100, "Grouting and Patching."

END OF SECTION